

Dual Triode

With Medium-Mu Unit and Low-Mu Unit

9-PIN MINIATURE TYPE

GENERAL DATA

Electrical:

Heater Characteristics and Ratings (*Design-Maximum Values*):Voltage (AC or DC) 6.3 ± 0.6 volts

Current at heater volts = 6.3 0.900 amp

Peak heater-cathode voltage (Each unit):

Heater negative with
respect to cathode. 200 max. voltsHeater positive with
respect to cathode. 200^a max. voltsDirect Interelectrode Capacitances (Approx.):^b

Unit No.1 Unit No.2

Grid to plate 4.0 8.5 μf Grid to cathode and heater. . . 2.2 5.5 μf Plate to cathode and heater . . 0.52 1.0 μf Characteristics, Class A₁ Amplifier:

Unit No.1 Unit No.2

Plate Voltage 250 60 150 volts

Grid Voltage. -11 0 -17.5 volts

Amplification Factor. 17.5 - 6

Plate Resistance (Approx.). . . 8750 - 925 ohms

Transconductance. 2000 - 6500 μmhos Plate Current 5.5 80^c 35 maPlate Current for grid volts =
-24 - - 10 maGrid Voltage (Approx.) for plate
 $\mu\text{a} = 10$ -20 - - voltsGrid Voltage (Approx.) for plate
 $\mu\text{a} = 50$ - - -44 volts

Mechanical:

Operating Position. Any

Type of Cathodes. Coated Unipotential

Maximum Overall Length. 2-5/8"

Maximum Seated Length 2-3/8"

Length, Base Seat to Bulb Top (Excluding tip). . . . 2" $\pm$ 3/32"

Diameter. 0.750" to 0.875"

Dimensional Outline See *General Section*

Bulb. T6-1/2

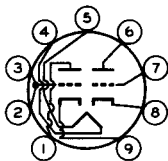
Base. Small-Button Noval 9-Pin (JEDEC No.E9-1)



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Basing Designation for BOTTOM VIEW. 9HF

Pin 1—Plate of
Unit No.2
Pin 2—Grid of
Unit No.2
Pin 3—Grid of
Unit No.2
Pin 4—Heater
Pin 5—Heater



Pin 6—Plate of
Unit No.1
Pin 7—Grid of
Unit No.1
Pin 8—Cathode of
Unit No.1
Pin 9—Cathode of
Unit No.2

VERTICAL-DEFLECTION OSCILLATOR

Values are for Unit No.1

Maximum Ratings, Design-Maximum Values:

For operation in a 525-line, 30-frame system^d

DC PLATE VOLTAGE.	330 max.	volts
PEAK NEGATIVE-PULSE GRID VOLTAGE.	400 max.	volts
CATHODE CURRENT:		
Peak.	77 max.	ma
Average	22 max.	ma
→ PLATE DISSIPATION	1.5 max.	watts

Maximum Circuit Values:

Grid-Circuit Resistance:

For grid-resistor-bias or cathode-bias operation. 2.2 max. megohms

VERTICAL-DEFLECTION AMPLIFIER

Values are for Unit No.2

Maximum Ratings, Design-Maximum Values:

For operation in a 525-line, 30-frame system^d

DC PLATE VOLTAGE.	275 max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE ^a	1500 max.	volts
PEAK NEGATIVE-PULSE GRID VOLTAGE.	250 max.	volts
CATHODE CURRENT:		
Peak.	175 max.	ma
Average	50 max.	ma
PLATE DISSIPATION	7 max.	watts

Maximum Circuit Values:

Grid-Circuit Resistance:

For grid-resistor-bias or cathode-bias operation. 2.2 max. megohms

^a The dc component must not exceed 100 volts.

^b Without external shield.

^c This value can be measured by a method involving a recurrent wave form such that the maximum ratings of the tube will not be exceeded.

^d As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations," Federal Communications Commission.

→ Indicates a change.





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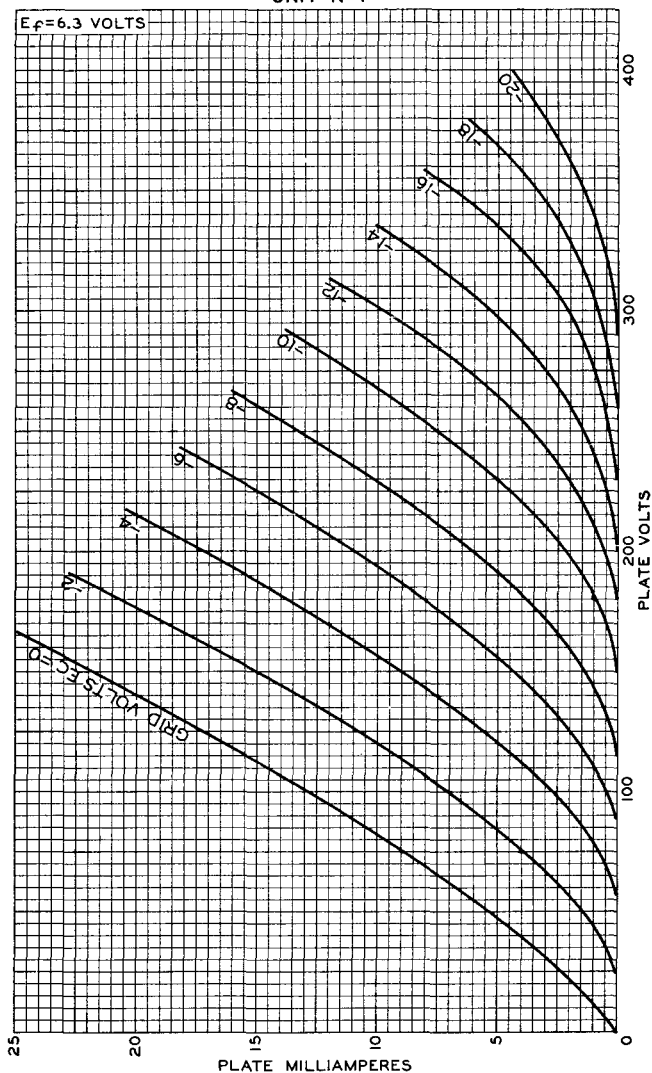
DUAL TRIODE
With Medium-Mu Unit and Low-Mu Unit

* This rating is applicable when the duration of the voltage pulse does not exceed 15 per cent of one vertical scanning cycle. In a 525-line, 30-frame system, 15 per cent of one vertical scanning cycle is 2.5 milliseconds.

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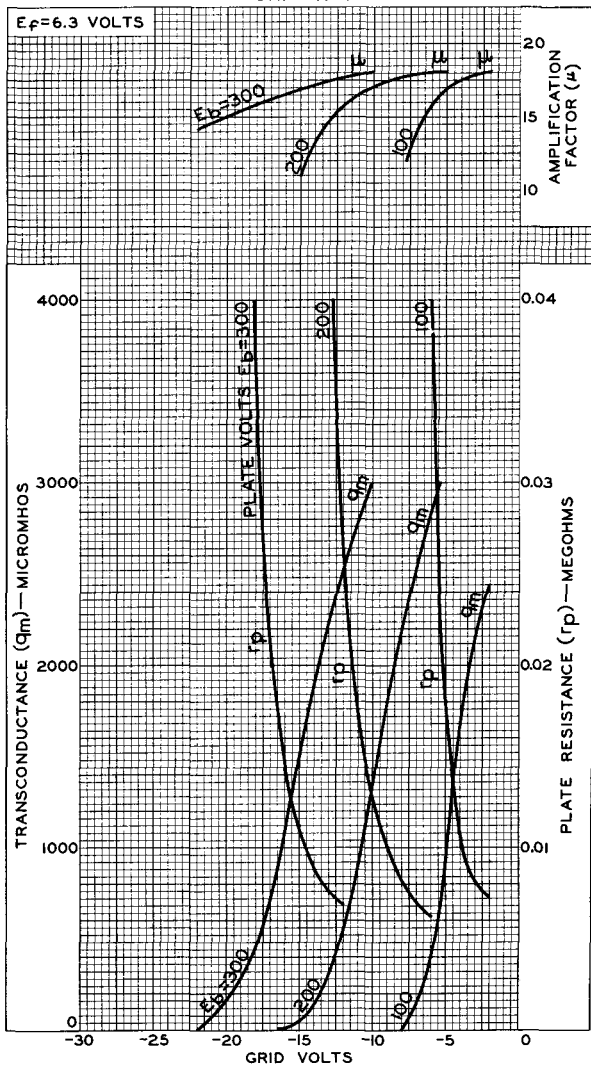
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AVERAGE PLATE CHARACTERISTICS
UNIT N°1



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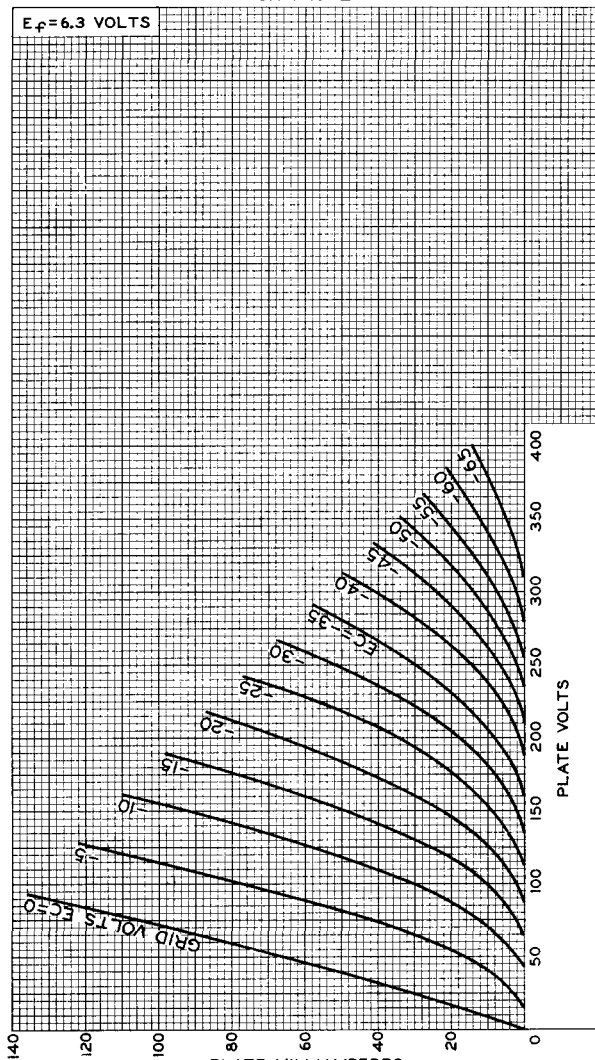
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AVERAGE CHARACTERISTICS
UNIT №1

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AVERAGE PLATE CHARACTERISTICS
UNIT No 2

ELECTRON TUBE DIVISION

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

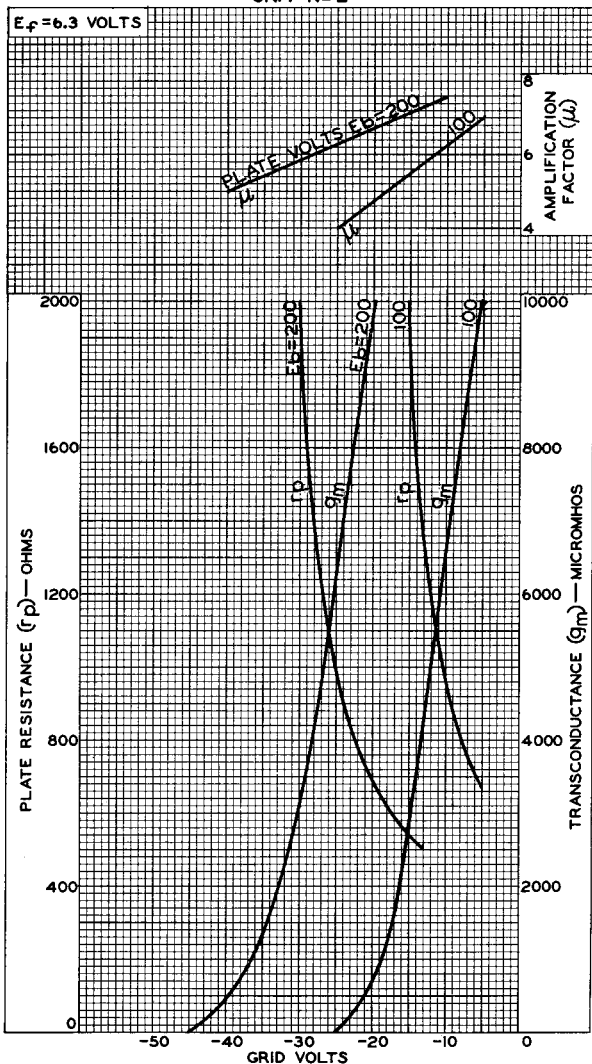
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AVERAGE CHARACTERISTICS UNIT No 2





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DUAL TRIODE

With Medium-Mu Unit and Low-Mu Unit

9-PIN MINIATURE TYPE

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GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage. 6.3 $\pm$ 10% ac or dc volts

Current. 0.9 amp

Direct Interelectrode Capacitances (Approx.):^o

	Unit No.1	Unit No.2	
Grid to plate.	4	8.5	μ f
Grid to cathode and heater .	2.2	5.5	μ f
Plate to cathode and heater.	0.52	1	μ f

Characteristics, Class A₁ Amplifier:

	Unit No.1	Unit No.2	
Plate Voltage	250	60 150	volts
Grid Voltage	-11	0 -17.5	volts
Amplification Factor.	17.5	- 6	
Plate Resistance (Approx.). .	8750	- 925	ohms
Transconductance.	2000	- 6500	μ mhos
Plate Current	5.5	80* 35	ma
Plate Current for grid voltage of -24 volts	-	- 10	ma
Grid Voltage (Approx.) for plate current of 10 μ a. . .	-20	- -	volts
Grid Voltage (Approx.) for plate current of 50 μ a. . .	-	- -44	volts

Mechanical:

Operating Position. Any

Maximum Overall Length. 2-5/8"

Maximum Seated Length 2-3/8"

Length, Base Seat to Bulb Top (Excluding tip) . . . 2" $\pm$ 3/32"

Diameter. 0.750" to 0.875"

Dimensional Outline See General Section

Bulb. T6-1/2

Base Small-Button Noval 9-Pin (JEDEC No.E9-1)

Basing Designation for BOTTOM VIEW. 9HF

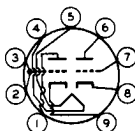
Pin 1-Plate of
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Pin 8-Cathode of
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Unit No.2



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DUAL TRIODE

With Medium-Mu Unit and Low-Mu Unit

VERTICAL-DEFLECTION OSCILLATOR

Values are for Unit No. 1

Maximum Ratings, Design-Maximum Values:

For operation in a 525-line, 30-frame system[□]

DC PLATE VOLTAGE.	330	max.	volts
PEAK NEGATIVE-PULSE GRID VOLTAGE.	400	max.	volts
CATHODE CURRENT:			
Peak.	77	max.	ma
Average	22	max.	ma
PLATE DISSIPATION [⊙]	7	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode.	200	max.	volts
Heater positive with respect to cathode.	200 [▲]	max.	volts

Maximum Circuit Values:

Grid-Circuit Resistance:

For grid-resistor-bias or
cathode-bias operation. 2.2 max. megohms

VERTICAL-DEFLECTION AMPLIFIER

Values are for Unit No. 2

Maximum Ratings, Design-Maximum Values:

For operation in a 525-line, 30-frame system[□]

DC PLATE VOLTAGE.	275	max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE [⊙]	1500	max.	volts
PEAK NEGATIVE-PULSE GRID VOLTAGE.	250	max.	volts
CATHODE CURRENT:			
Peak.	175	max.	ma
Average	50	max.	ma
PLATE DISSIPATION [⊙]	7	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode.	200	max.	volts
Heater positive with respect to cathode.	200 [▲]	max.	volts

Maximum Circuit Values:

Grid-Circuit Resistance:

For grid-resistor-bias or
cathode-bias operation. 2.2 max. megohms

[⊙] Without external shield.

^{*} This value can be measured by a method involving a recurrent wave form such that the maximum ratings of the tube will not be exceeded.

[□] As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations," Federal Communications Commission.

[⊙] In stages operating with grid-resistor bias, an adequate cathode-bias resistor or other suitable means is required to protect the tube in the absence of excitation.

[▲] The dc component must not exceed 100 volts.